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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,899	08/18/2003	Masamichi Saito	9281-4631	3209

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT PAPER NUMBER

2627

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,899

Applicant(s)

SAITO ET AL.

Examiner

William J. Klimowicz

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2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,9-11,17,19,20,24,26,27 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,9-11 and 17 is/are allowed.
- 6) ☒ Claim(s) 19,20,24,26,27 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicants' election of Specie I, corresponding to Figures 1-3 in the reply filed on May 15, 2006 is acknowledged.

In the Reply, the Applicants state:

Applicants hereby elect Specie 1: Corresponding to Figures 1 - 3 and Claims 1 - 3, 9 - 11, 17, 19, 20, 24, 26, 27, and 31. This election is made with traverse.

However, because applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Status

Claims 4-8, 12-16, 18, 21-23, 25, 28-30, and 32 have been cancelled voluntarily by Applicants.

Claims 1-3, 9-11, 17, 19, 20, 24, 26, 27, and 31 are currently pending.

Specification

The disclosure is objected to because of the following informalities:

With regard to the Applicants' specification, at page 21, lines 4-10, it states:

The magnetic detecting element include an underlayer 21, a seed layer 22, a lower antiferromagnetic layer 23, a lower pinned magnetic layer 24, ***a lower nonmagnetic material layer 25 having a three-layer ferrimagnetic structure composed of magnetic layers 50 and 52 and a nonmagnetic interlayer 51***

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formed of, for example, Ru between these magnetic layers, and a free magnetic layer 26, in that order, on the upper surface...

Emphasis in bold italics underlined. It is noted, however, that it is the “lower pinned magnetic layer 24” that includes the “three-layer ferrimagnetic structure” and not the lower nonmagnetic material layer 25, as currently set forth in the italicized specification language.

With regard to page 22, line 13, the phrase “rear earth elements” should be changed to the phrase --rare earth elements--.

Appropriate correction is required.

Claim Objections

Claims 19, 20 and 24 are objected to because of the following informalities:

With regard to claims 19, 20 and 24 (line 3 of each claim), the word “punned” should be changed to the word --pinned--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19, 20, 24, 26, 27 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following phrase(s) lack clear antecedent basis within the claim(s), i.e., either the particularly recited passage fails to be properly introduced prior to its appearance at that point in the claim or the structure recited in the passage is not an inherent part of or component of the previously recited structure:

- (i) With regard to claim 19, line 3, the phrase “the third magnetic layer.”
- (ii) With regard to claim 19, line 4-5, the phrase “the nonmagnetic interlayer layers” (plural).
- (iii) With regard to claim 20, line 3, the phrase “the third magnetic layer.”
- (iv) With regard to claim 20, line 4-5, the phrase “the nonmagnetic interlayer layers” (plural).
- (v) With regard to claim 24, line 3, the phrase “the third magnetic layer.”
- (vi) With regard to claim 24, line 4-5, the phrase “the nonmagnetic interlayer layers” (plural).
- (vii) With regard to claim 26, line 2-3, the phrase “the nonmagnetic interlayers” (plural).
- (viii) With regard to claim 27, line 2-3, the phrase “the nonmagnetic interlayers” (plural).
- (ix) With regard to claim 31, line 2-3, the phrase “the nonmagnetic interlayers” (plural).

Allowable Subject Matter

Claims 1-3, 9-11 and 17 are allowed.

Claims 19, 20, 24, 26, 27 and 31 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

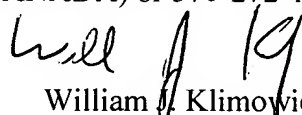
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK